

Quality Improvement Plan

2020-2022

Arkansas Department of Health



Submitted by
Office of Performance Management Quality
Improvement and Evaluation

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BACKGROUND

The Arkansas Department of Health (ADH) Quality Improvement Plan, 2020-2022 is the result of a collaborative effort of the Office of Performance Management Quality Assurance and Evaluation (OPMQIE) staff and teams noted in the STRUCTURE section. A survey was administered in 2019 to obtain input from the ADH staff members on the culture of Continuous Quality Improvement (CQI) initiative. Approximately 46% of the staff contacted, responded to a 39-question survey representing six categories: Leadership, QI Infrastructure, Staff Empowerment, Teamwork, Customer Focus, and Process Improvement. The results demonstrated that ADH had a strong foundation to support the ADH QI and CQI initiatives.

The 2020-2022 QI Plan incorporates all six categories mentioned above and underscores the need for an ongoing improvement in QI related infrastructure, training, communication, staff satisfaction, and customer input.

It is important to note that the ADH received an initial accreditation from the Public Health Accreditation Board (PHAB) in 2016. As we continue to assess ADH's progress for PHAB Reaccreditation, we realize the importance of QI and CQI activities in maintaining the Accreditation Standards and how they operate together to strengthen public health practice for improving the health of the population we serve.

Another cornerstone of PHAB is Performance Management System (PMS). One of the performance areas of ADH's PMS includes QI and CQI. The PMS is designed to work synergistically with QI and CQI initiatives at the agency level. For example, when PMS identifies gaps in customer services through customer satisfaction feedback, the QI Champions and CQI Council members guide the implementation of a QI project to bridge the gap. The success of these QI projects depends on the extent to which staff demonstrate a commitment to continually improve the work they do. It is a CULTURE, shared by the agency and the staff members within the agency units, where the examination for potential improvements is a routine part of the daily work.

During the second half of 2019, the ADH initiated the self-study process for the preparation of PHAB Reaccreditation application. Implementation of PMS and its components (Performance Measures, Quality Improvement, State Health Assessment, State Health Improvement, Strategic Plan, and Workforce Development) were one of many requirements of the application.

Unfortunately, in early 2020, COVID-19 pandemic hit the State and continued to spread throughout the year with no sign of abatement in sight. It consumed most of our agency's resources and personnel. In the same year, the ADH Director (Secretary of Health) left the agency, and a new Director was appointed. In addition to the pandemic and the change in leadership, the reaccreditation team leads, and their team members continued to be assigned to COVID-19 mitigation tasks. These circumstances caused significant delay in moving the self-study forward including the QI and CQI initiatives. Like many other accredited State Health Departments, the ADH received an extension for the submission of reaccreditation application.

Despite these challenges, the ADH is committed to continue the implementation of QI and CQI interventions and enhance the culture of CQI.

QUALITY IMPROVEMENT AND CONTINUOUS QUALITY IMPROVEMENT

Introduction to Quality Improvement

Quality Improvement (QI) and Continuous Quality Improvement (CQI) are two interdependent concepts that are both necessary for an organization to achieve and maintain meaningful improvements. QI is a process, which is evidenced by specific improvement projects, while CQI is a culture that normalizes routine improvement work. QI projects and a CQI culture are intertwined. QI projects are an essential component of a culture of CQI, but a culture of CQI is critical if improvements made by a QI project, are to be maintained over the long term.

	Quality Improvement (QI)	Continuous Quality Improvement (CQI)
Definition	QI is a PROCESS which uses evidence-based, best practice tools to improve the effectiveness and/or efficiency of a service, project or program in a measurable way.	CQI is a shared CULTURE where we routinely examine the processes, systems, and programs for potential improvements, and implement the improvement initiatives.
Characteristics	<p>Principles:</p> <ul style="list-style-type: none">• Data• Team members• Empowerment• Engagement• Communication• Process, not people• Training• Infrastructure	<p>Elements:</p> <ul style="list-style-type: none">• Leadership• Staff Empowerment• Teamwork• Process Improvement• Customer Focus• QI Infrastructure
Value	<p>QI primarily enhances:</p> <ul style="list-style-type: none">• EFFICIENCY by streamlining processes• EFFECTIVENESS by improving outcomes of the services and programs we provide to customers, and to each other.	An agency-wide culture of CQI means that the benefits and results achieved through QI are sustained over the long term and spread throughout the agency. This culture, based on the six elements noted above, benefits staff in the organization and the public we serve.
Examples	The Public Health Laboratory reviewed steps for testing drinking water for bacterial contamination. By eliminating wasteful steps, it was able to significantly reduce the time staff took to complete the testing.	The Arkansas Lifeline Call Center (ALCC), within the Center for Health Protection, has a QI Management Plan which informs every aspect of ALCC work, including training, provision of service, data collection and analysis, monitoring, and continual improvement.

Introduction to Continuous Quality Improvement Initiative

The ADH plans to use QI as one of the key tools to help realize its Mission, “To protect and improve the health and well-being of all Arkansans.” The CQI initiative is characterized by the following five key elements of Mission, Focus, Values, Principles, and Work.

CQI Mission

We are working toward the mission to “Promote a culture of CQI by improving the agency’s day to day performances to improve the outcomes.”

- Promote all staff, no matter what their job responsibilities, to be involved in QI projects.
- Create a culture across the agency where QI activity is a routine and normal part of our work.
- Improving what we do and how we do it, is at the core of this work.
- We focus both on processes and outcomes, the efficiency of how we work and the effectiveness of what we do.

Focus: Due to the interdependency of QI projects and the culture of CQI, we focus on both.

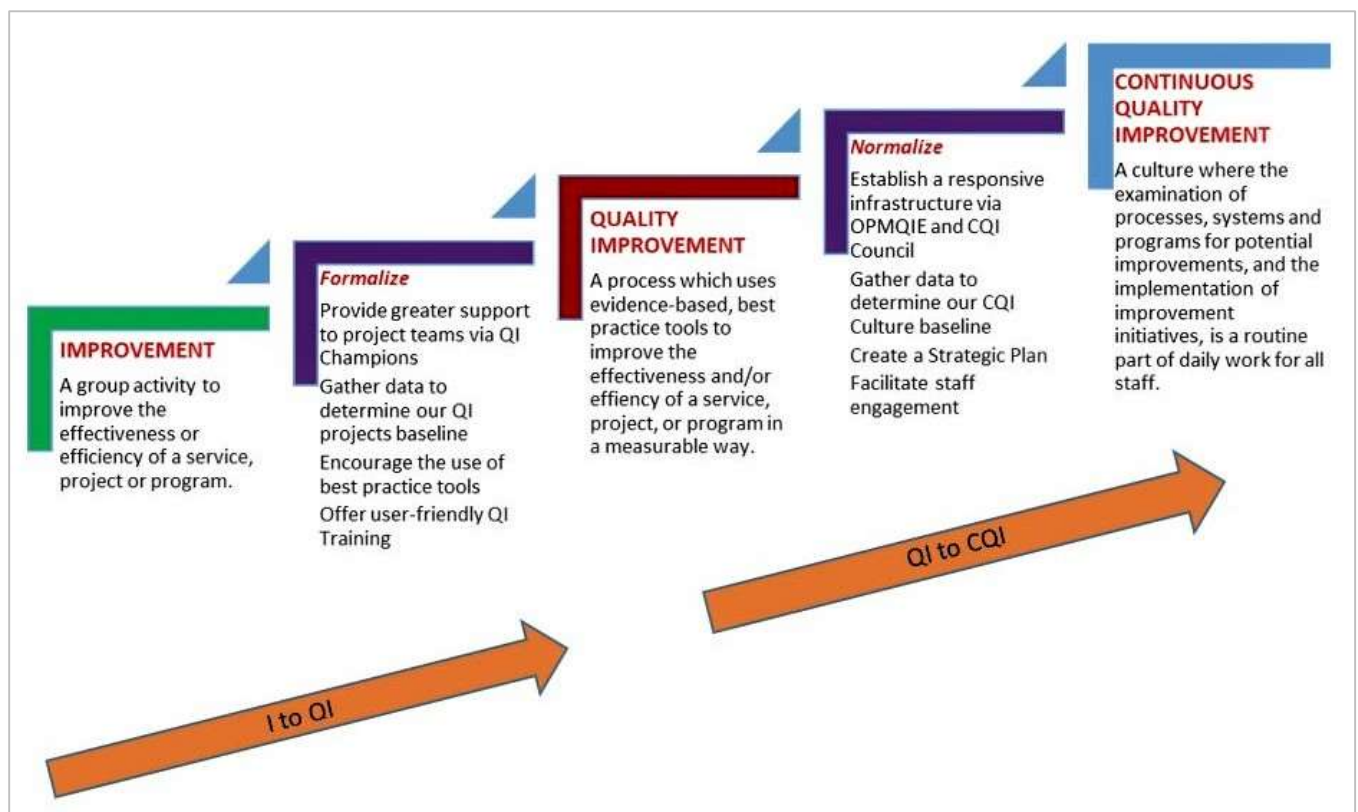
Values: CQI embodies the values of

- Engagement
- Respect
- Communication
- Innovation

Principles: Seven key principles guide our QI projects and the culture of CQI.

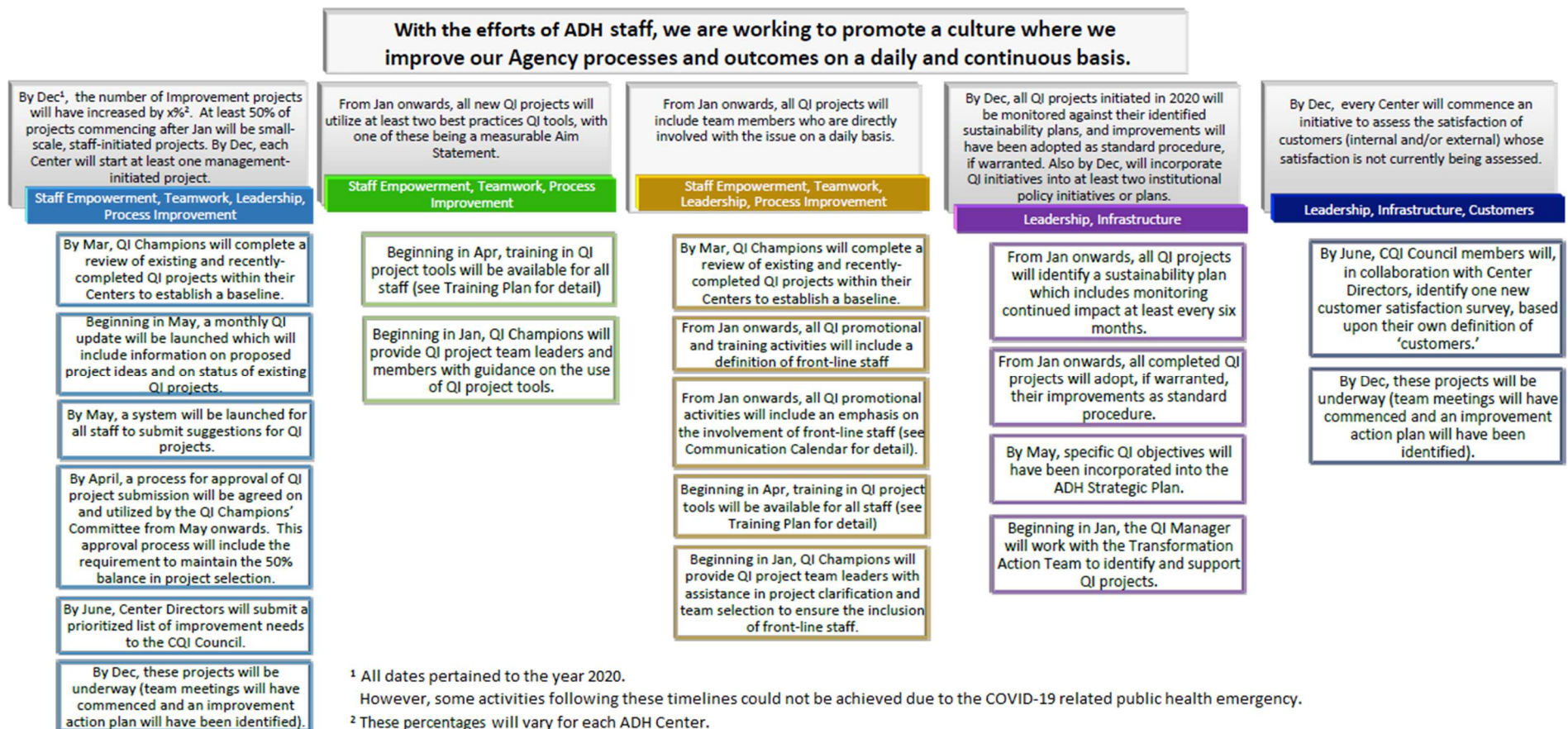
- Leadership
- Infrastructure
- Staff Engagement
- Teamwork
- Efficiency & Effectiveness
- Best Practice
- Mission Focus

Work: Our efforts focus on progressing ADH from Improvement (I) to QI to CQI. We achieve the first stage by developing a more FORMALIZED system and the second stage by NORMALIZING quality work across the agency. The following graphic illustrates this work and the specific steps that are being taken during each stage.



ADH QUALITY IMPROVEMENT WORKPLAN, 2020-2022

The 2020-2022 Quality Improvement Workplan is the result of a collaborative effort of the OPMQIE staff, and the teams noted in the STRUCTURE section. An employee survey was conducted to select the six focus areas of the workplan consisting of Leadership, QI Infrastructure, Staff Empowerment, Teamwork, Customer Focus, and Continuous Process Improvement. Other areas emphasized by the survey participants included ADH staff involvement in the QI process, enhancing staff morale, and improving ADH communications. These three aspects are widely reflected in the Structure, Training, Communications, and Feedback sections of this workplan. Please refer to APPENDICES 5-7 for “CQI @ ADH” training plans developed in 2020. Some of the training stages have already been completed.



STRUCTURE

Office of Performance Management Quality Improvement and Evaluation (OPMQIE)

OPMQIE has three units with responsibilities for performance management, quality improvement, and performance evaluation. The Performance Management unit currently maintains the Public Health Accreditation Board (PHAB) compliance and self-study. The Quality Improvement unit works to develop a culture of CQI within the agency by conducting QI training and overseeing QI projects. The Performance Evaluation unit evaluates performance activities of ADH programs.

The QI manager monitors the Plan, facilitates QI Champions and CQI Council meetings, develops and delivers trainings, creates communication materials, and performs other QI activities. The CQI work is supported by the QI Champions and CQI Council. The two groups facilitate QI projects and CQI culture, respectively, representing different but complimentary focus. Details are provided below.

Continuous Quality Improvement (CQI) Council

The CQI Council is composed of senior leaders from each of the five ADH Centers and the QI Manager. The purpose of the CQI Council is to facilitate, promote, and assess the growth of a CQI culture in the agency. Its responsibilities are to:

- I. Facilitate the spread of a CQI culture across ADH
 - a. Address barriers to the empowerment of staff and managers to address problems and to participate in projects
 - b. Address barriers to the implementation and institutionalization of improvements originating from QI teams
 - c. Make recommendations to Executive Leadership on policy and procedural changes which may foster the growth of a CQI culture
- II. Promote CQI as an institutional priority
- III. Oversee the biennial QI Culture self-assessment
- IV. Contribute to the development of a QI communications strategy
- V. Review the integration of QI into the ADH Strategic Plan and associated Work Plans
- VI. Review updates on QI projects by QI Champions Committee
- VII. Assist with the development, monitoring, and review of the QI Plan
- VIII. Identify, approve, and monitor agency-wide QI projects

The CQI Council meets bi-monthly and Council members agree to serve a minimum of two years.

Quality Improvement Champions

The QI Champions Committee has two representatives from each of the five Centers. The purpose of this committee is to provide input, advice, and assistance to support Quality Improvement activities across the agency. The responsibilities of QI Champions are to:

- I. Promote
 - a. CQI culture within Center
 - b. Submission of new QI project ideas
 - c. Use of QI tools by existing improvement teams

- II. Assist in
 - a. Facilitating the formation of QI project teams
 - b. Attending QI project team meetings as needed
 - c. Providing any needed technical support to QI project teams
 - d. Providing any needed support to promote 'health' of the team
- III. Monitor
 - a. QI projects and report monthly
 - b. Integration of completed improvements

The QI Champions Committee meets monthly, and the members serve in the committee for a minimum of two years.

Quality Improvement Recruits and Pros

- I. Selection of Recruits and Pros
 - a. ADH staff members are selected as Recruits
 - b. QI Manager and QI Champions facilitate the selection
- II. Training and certification
 - a. Recruits complete QI/CQI training
 - b. Get certified as Pros
- III. QI Projects
 - a. At first, Pros or Champions identify projects
 - b. As more Pros get certified, a deliberate way of soliciting project ideas is established
 - c. Pros and Champions facilitate approval of QI Project from the Center
 - d. QI Pro serves as project lead and begins project
- IV. Reporting
 - a. Periodically, Pros submit progress report to the Champion and the Manager
 - b. Pros submit final report when project is completed
- V. Data base and Storyboard
 - a. The QI project information is included in the QI Database and Storyboard
 - b. The Storyboard is posted on the QI Webpage.

Funding

Funding for OPMQIE comes from the central budget of ADH as well as from the Preventative Health and Health Services Block Grant. OPMQIE provides financial and administrative support to the operation of the CQI Council and the QI Champions. Staffing resources exist within OPMQIE to provide consultation, facilitation, and training for quality improvement activities throughout ADH.

TRAINING

Quality Improvement (QI) and Continuous Quality Improvement (CQI):

The ADH is not new to the “improve what we do and how we do it” approach. The focus is to not only facilitate specific improvements project but also work to develop a CQI culture across the agency. The ADH has named this initiative CQI @ ADH, constituting three training stages.

Stage 1: Teach basic QI methods and tools to QI project teams to improve the processes within ADH work units.

State 2: Provide guidance, training, and resources to QI Champions and CQI Council members to enable them to be effective in 1) facilitating the ongoing development of an agency wide CQI culture and 2) in supporting QI project teams.

State 3: Promote the development of an agency wide CQI culture by building the Knowledge, Skills, and Abilities (KSAs) of all ADH staff and facilitating the growth of QI projects.

Please refer to APPENDICES 5-7 for details on the training plans. Training stages 1 and 2 have already occurred. Training stage 3 was delayed in implementation due to the COVID-19 pandemic. CQI @ ADH is an agency-wide effort to build upon the QI work of ADH accomplished over the years:

- Facilitate wider staff engagement in QI activities
- Embed a culture of QI into every aspect of our daily work

The stated goal of CQI @ ADH is: *“With the effort and voices of all staff, we are working to promote a culture where we improve our Agency processes and outcomes on a daily and continuous basis.”*

The initiative is being led by the OPMQIE with the support of the CQI Council and QI Champions. The work is directed to move ADH from I (Improvement) to QI to CQI through a dual focus on QI projects and an agency-wide culture of CQI. Please refer to page 5 for the illustration. The training opportunities made available to all staff will reflect this complementary focus.

Trainings will provide ADH colleagues the knowledge and skills to participate in and lead CQI activities within their work areas. Listed below is the series of training videos being developed. There will be a series of 11 (1-11) videos for training. Video 12 was developed to assist with COVID-19 work. Nine trainings are currently in script format to be converted into videos in 2022.

Training video 1*: Introduction to QI and CQI

Training video 2: Implementing CQI

Training video 3: Doing the QI PDSA Model

Training video 4: Importance of the Use of Data

Training video 5*: Brainstorming and Affinity Diagrams

Training video 6*: Process Mapping

Training video 7: Cause and Effect Tools

Training video 8*: Creating and Using Aim Statements

Training video 9: Run and Pareto Charts

Training video 10: Leading a QI Project Team

Training video 11: Celebrating the Work of Teams

Training video 12: Utilizing QI Methods and Techniques in Most Demanding Circumstances (QI on the Fly for COVID-19 Pandemic, See APPENDIX 7)

**Videos completed*

PERFORMANCE MANAGEMENT SYSTEM AND QUALITY IMPROVEMENT

It is important to emphasize here that the Public Health Accreditation Board (PHAB) requires ADH's Performance Management System (PMS) and Quality Improvement (QI) units to work together. As PMS is being developed and implemented in the ADH, we anticipate that a synergy will develop between the two units to create a culture of improved performance.

The PMS measures (indicators) cover eight key areas including Customer Satisfaction, Financial Management, Grants and Contracts, Human Capital, Information Services and Technology, Process Improvement, Program Development, and Vital Statistics. These areas present quality council members and champions a wide array of opportunities to provide guidance and support to enhance performance through quality improvement.

An example of the unified work of PMS and QI can be demonstrated by this. If the data collected for the Customer Satisfaction performance indicators show that more effort is needed to respond appropriately to certain customer complaints, the Quality Council/Champions would be able to provide guidance and assistance in designing and implementing projects to improve response to the specific customer complaints.

Please refer to the next section for examples of Customer Feedback mechanism currently in place in ADH and corrective actions taken in the past.

CUSTOMER FEEDBACK

Patient Feedback

Customer feedback is collected, analyzed, and acted upon by ADH in a variety of ways to improve the efficiency and effectiveness of programs and services. The process is particularly well developed in the Local Health Units (LHUs) which are located throughout the state. Following their clinic appointments at the LHUs, patients receive automated text survey about the quality of services they receive. This online, user-friendly survey solicits feedback on several issues, including:

- How friendly and helpful was the health unit staff?
- How would you rate our scheduling process?
- How would you rate your privacy?
- Tell us about your wait time and length of visit.
- How would you rate the condition of the health unit?
- Please describe your overall visit experience.
- The survey also has an open text field for other feedback and suggestions.

All LHUs have access to the text survey results, which enables them to take corrective actions to the survey responses that contain sufficient details for a follow-up. Actions are also warranted if a survey response demonstrates a trend that puts the LHU out of the norm in comparison with other LHUs within the state. An example of a wide scale action taken by LHUs in response to customer feedback, was the initiation of a pilot project, extending hours of clinic operations from 4:30 to 6:00 p.m., for at least one day per week. Following a successful pilot program, all LHUs in the state extended their clinic hours to 6:00 p.m., providing much needed clinic appointment options to their patients.

My ADH Idea

In 2019, the “My ADH Idea” initiative was launched. It is an online system which enables staff to submit ideas on ways ADH can improve, transform, or innovate. All ideas are reviewed by senior ADH staff and, where appropriate, referred to the responsible unit for action. Several the suggestions resulted in the establishment of specific projects including:

- Formation of a task force to evaluate the ADH vehicle fleet and travel usage.
- Creation of a break area for employees
- Initiation of efforts to create an internal mentorship program, increasing availability to professional development, and to improve morale.

COMMUNICATIONS

The OPMQIE shares QI project information and resources with ADH staff in a variety of ways. The primary method is through the dedicated webpage created on the ADH intranet. The webpage includes information on QI infrastructure, resources, and tools. QI information is also shared through articles that appear in the ADH all-staff newsletter. In the past, the OPMQIE has also communicated information on specific issues via printing and distribution of posters to every building within the agency. The first poster introduced ADH’s CQI approach and the second shared the results of the CQI culture survey.

ASSESSING EFFECTIVENESS

The effectiveness of the QI Plan and activities are assessed by the OPMQIE staff, the CQI Council members and QI Champions. This assessment includes continuous monitoring of the QI Plan and its components, particularly the work plan component which includes measurable objectives and specific action steps. The CQI Council can recommend improvements any time and develop recommendations on how to make the identified improvements. Depending on the nature of these improvements, the QI Manager would decide if they require approval from the CQI Council and/or the QI Champions.

For example, after two years of using external consultants to lead QI training for the CQI Council and the QI Champions, the QI Manager determined that this approach was not only unsustainable over the long term, but that it also did not reach a wide enough section of ADH employees. The QI Manager recommended that a series of customized online training videos be developed that would be available to all staff and in a format that would enable self-directed learning. This recommendation was supported by the ADH senior executive staff, and the QI Plan was revised accordingly.

Another example of how the ongoing review of the QI Plan and its activities resulted in improvements pertained to the QI infrastructure. When the COVID pandemic hit, virtually all QI projects were put on hold as staff were reassigned to COVID related work. This provided an opportunity for the QI Manager to assess the infrastructure and to determine whether it was sufficiently agile to respond to changing circumstances. The QI Manager concluded that the system could be redesigned in a way that would enable QI projects to continue to be established while strengthening the incorporation of QI into Center-level plans and practices. Specifically, these changes would:

- Simplify the process for the initiation of QI projects.
- Enhance the engagement of ‘front line’ staff in QI activities
- Facilitate QI capacity-building by creating user-friendly, easily accessible training.
- Increase the number of staff trained in QI.
- Facilitate the incorporation of QI into Center level plans, policies, and initiatives.
- Enhance the spread of a culture of CQI throughout Centers.

The changes were approved by the CQI Council, and the revisions were incorporated into the QI Plan.

APPENDICES

APPENDIX 1: Quality Improvement Structure

Primary Changes

- Refocus the work of QI Champions to concentrate more on Center-level QI strategy than specific QI projects.
- Create a cadre of trained QI Pros who, with the approval of the appropriate supervisor, can initiate a QI project at any time. They will be supported by trained QI Recruits.

Objectives

- Simplify the process for the initiation of QI projects.
- Enhance the engagement of 'front line' staff in QI activities.
- Facilitate QI capacity-building by creating user-friendly, easily accessible training.
- Increase the number of staff trained in QI.
- Facilitate the incorporation of QI into Center level plans, policies, and initiatives.
- Enhance the spread of a culture of CQI throughout Centers.

System



Process Highlights

Capacity Building

- Any ADH staff member can complete QI training modules on TRAIN.
- A database will be maintained of all staff who complete the training. They will be our QI Recruits and will be issued a certificate and recognized on our webpage.
- Those QI Recruits who want to be QI Pros will need to complete all the modules and then lead a QI project team. QI Pros will be recognized on our webpage.

QI Projects

- Initially, QI Pros or QI Champions identify projects. (After a year or so, when more staff are 'certified' as Pros and staff complete the training, then a more deliberate way of soliciting project ideas, can be established.)
- QI Pros, in collaboration with QI Champions, get approval from the appropriate manager in the Center to start a QI project.
- QI Pro serves as project lead and begins project.
- QI Pros are supported on their teams by QI Recruits.
- QI Pro submits progress report to QI Champion and QI Manager on a periodic basis.
- When project is completed, QI Pro submits final report to QI Champion and QI Manager and creates a storyboard.
- Information on project is included in QI Database and storyboard is included on QI Webpage.

Timeline

- Identify QI Champions (all existing Champions can continue if they wish)
- Complete training modules in TRAIN
- Invite staff to begin training

APPENDIX 2: Quality Improvement Champions Charter

I. Purpose

Quality Improvement Champions facilitate the incorporation of CQI and QI into Center policies, plans and activities.

II. Responsibilities

- a. Promote CQI culture within Center/unit
- b. Facilitate the integration of QI into Center Work Plans
- c. Facilitate the formation of QI project teams to address Center-level QI needs
- d. Support QI Pros and QI project teams
- e. Contribute to the development of the CQI Plan
- f. Facilitate participation on QI teams by all sectors of employees
- g. Facilitate the implementation and institutionalization of improvements originating from QI teams
- h. Provide a quarterly report on QI projects in their Centers

III. Training

Every QI Champion commits to participation in QI training. The specific training needs for each QI Champion will be jointly agreed between the Champion and the Quality Improvement Manager.

IV. Meetings

QI Champions will meet every quarter and meetings will be organized by the Office of Performance Management, Quality Improvement and Evaluation.

V. Terms

QI Champions agree to serve a minimum of two years.

APPENDIX 3: Quality Improvement Champions Handbook

Handbook Cover.



APPENDIX 4: Continuous Quality Improvement Council Charter

I. Purpose

Members of the Continuous Quality Improvement (CQI) Council facilitate, promote, and assess the growth of a CQI culture at ADH.

II. Responsibilities

- a. Facilitate the spread of a CQI culture across ADH
- b. Promote CQI as an institutional priority
- c. Oversee the biennial QI Culture self-assessment
- d. Contribute to the development of a QI communications strategy
- e. Review the integration of QI into agency-level plans, such as the ADH Strategic Plan
- f. Contribute to the development and monitoring of the CQI Plan

III. Membership

The Council is composed of every CQI member and the Quality Improvement Manager. Each ADH Center, as well as Administration, has one CQI Council member.

IV. Meetings

The Council will meet quarterly. The meetings will be organized by the Office of Performance Management, Quality Improvement and Evaluation.

V. Training

Every Council member commits to participation in QI training. The specific training needs for each member will be jointly agreed between the member and the Quality Improvement Manager.

VI. Terms

Council members agree to serve a minimum of two years.

APPENDIX 5: Continuous Quality Improvement Training Stages

CQI @ ADH

TRAINING - INTRODUCTION

Quality Improvement (QI) is not new to the Arkansas Department of Health (ADH) and it is an approach that many public health agencies across the country have adopted to 'improve what we do and how we do it.' As a body of practice develops from these agencies that share a common need to provide services in a constantly changing public health environment, so too has the approach taken by ADH developed to ensure that we focus not only on facilitating specific improvements brought about by QI project teams, but that we also work to develop a Continuous Quality Improvement (CQI) culture across the entire agency. This work has now been titled CQI @ ADH - Continuous Quality Improvement at the Arkansas Department of Health and it has been the approach taken during Stages 2 and 3 of our CQI Training Plan (see attached ADH CQI Training Plan).

CQI @ ADH is an agency-wide effort to build upon the improvement work that has taken place at the agency over the years, to:

- Facilitate wider staff engagement in Quality Improvement work
- Embed a culture of Continuous Quality Improvement into every aspect of our daily work

The stated goal of the initiative is:

With the effort and voices of all staff, we are working to promote a culture where we improve our Agency processes and outcomes on a daily and continuous basis.

The CQI @ ADH initiative will be led by the Office of Performance Management, Quality Improvement, and Evaluation (OPMQIE), but will be done so with the support of the Continuous Quality Improvement Council (CQI) and QI Champions.

The work will be directed toward moving ADH from I (*Improvement*) to QI (*Quality Improvement*) to CQI (*Continuous Quality Improvement*) through a dual focus on QI projects and an agency-wide culture of CQI. The training opportunities made available to all staff will reflect this complementary focus.

APPENDIX 6: “CQI @ ADH” Training Stages

CQI @ ADH, Training Stages						
Stage	Objectives	Dates	Audience	Format	Content	Notes
1	The overall aim of this QI Training Program was to teach basic quality improvement methods and tools that could be used to improve a process within each division’s area of work.	3/15/2018	25 staff	Consultant-led webinar	Program overview, project and team selection	This training was focused on the establishment of four QI project teams and providing the participating staff with the necessary QI tools to facilitate the development of these projects.
		4/4/2018	25 staff	Consultant-led webinars	Define QI and its importance, review project aims and introduce QI tools	
		4/24/2018 4/25/2018	25 staff	On-site workshop	Map the current process, identify areas for improvement, and develop action plan to test ideas	
		5/22/2018	25 staff	Coaching call	Review progress on action plans	
		6/20/2018 6/21/2018	25 staff	On-site workshop	Review progress made, introduce new QI tools, and develop a sustainability plan	
2	This provided guidance, training and resources to Quality Improvement (QI) Champions and Continuous Quality Improvement (CQI) Council members to enable them to be effective in 1) facilitating the ongoing development of an agency-wide Continuous Quality Improvement culture and 2) in supporting QI project teams.	6/20/2019	QI Champions & CQI Council members	Consultant-led Webinar	Overview of CQI, changing organizational culture, Building and sustaining a CQI Culture	Webinar slides will be modified and published on the CQI intranet page for all staff to view
		8/6/2019	QI Champions & CQI Council members	Consultant-led Webinar	Preliminary results of the QI Survey, using results to plan future steps	
		9/18/2019	CQI Council Members	On-site workshop	Building and Leading a Culture of CQI	
		9/19/2019	QI Champions	On-site workshop	QI Project Team Facilitation Techniques and Teaming	
3	To promote the development of an agency-wide Continuous Quality Improvement culture by building the Knowledge, Skills, and Abilities (KSAs) of all ADH staff and facilitating the growth of QI projects.	9/2019 - 6/2021	All ADH Staff	Online micro-learning video modules housed on TRAIN.	This series of videos will cover CQI Culture (C), and three of the elements which are essential to its adoption: Quality/Process Improvement (PI), Staff Empowerment (E), and Teamwork (T).	The modules covering CQI Culture (C) are designed for all staff, and it is hoped that, in due course, all staff will be required to complete them. More immediately, it is hoped that, beginning in November, all new employees will be required to complete these videos. The modules covering Quality/Process Improvement (PI), Staff Empowerment (E), and
				1. CQI at ADH (C)	An introduction to CQI in general, how we do it at ADH, and ways each staff member can contribute to it.	
				2. Empowerment (E)	The importance of employee empowerment for the growth of CQI, how supervisors can contribute to it, and how employees can practice it.	

				3. Team-working (T)	How to be an effective project team member.	<p>Teamwork (T) are intended for staff participating in QI project teams and are designed to promote the effectiveness of the team. Team members will be required to complete certain modules at the beginning of the project teams, and during the progress of the team, as needed.</p> <p>In the TRAIN system, employees who complete a video module will earn a certificate of completion. Employees who complete the entire series of 10 modules will be awarded a recognition 'badge' and a list of these employees will be promoted on the CQI intranet page and updated on a monthly basis. QI Champions will also receive a monthly print-out of participation in the videos by employees in their Centers.</p>
				4. PDSA (PI)	The PDSA model for QI projects.	
				5. Brainstorming (PI)	Tools used in project teams to facilitate participation and to gather and sort ideas.	
				6. Aim Statements (PI)	The importance of a measurable Aim Statement, its components, and how to develop one.	
				7. Process mapping (PI)	How to identify and document steps in a process to determine potential areas for process efficiencies.	
				8. Cause & effect (PI)	Tools to use to determine the root cause of a problem.	
				9. Pareto Chart	Tool to identify what issues contribute the most to a particular problem.	
				10. Run chart (PI)	Using data charts to represent the impact of the implementation of improvement ideas.	
				11. Sustaining and Conclusion (C)	Moving from QI to CQI.	



APPENDIX 6: “CQI @ ADH” Training Contd.

CQI @ ADH

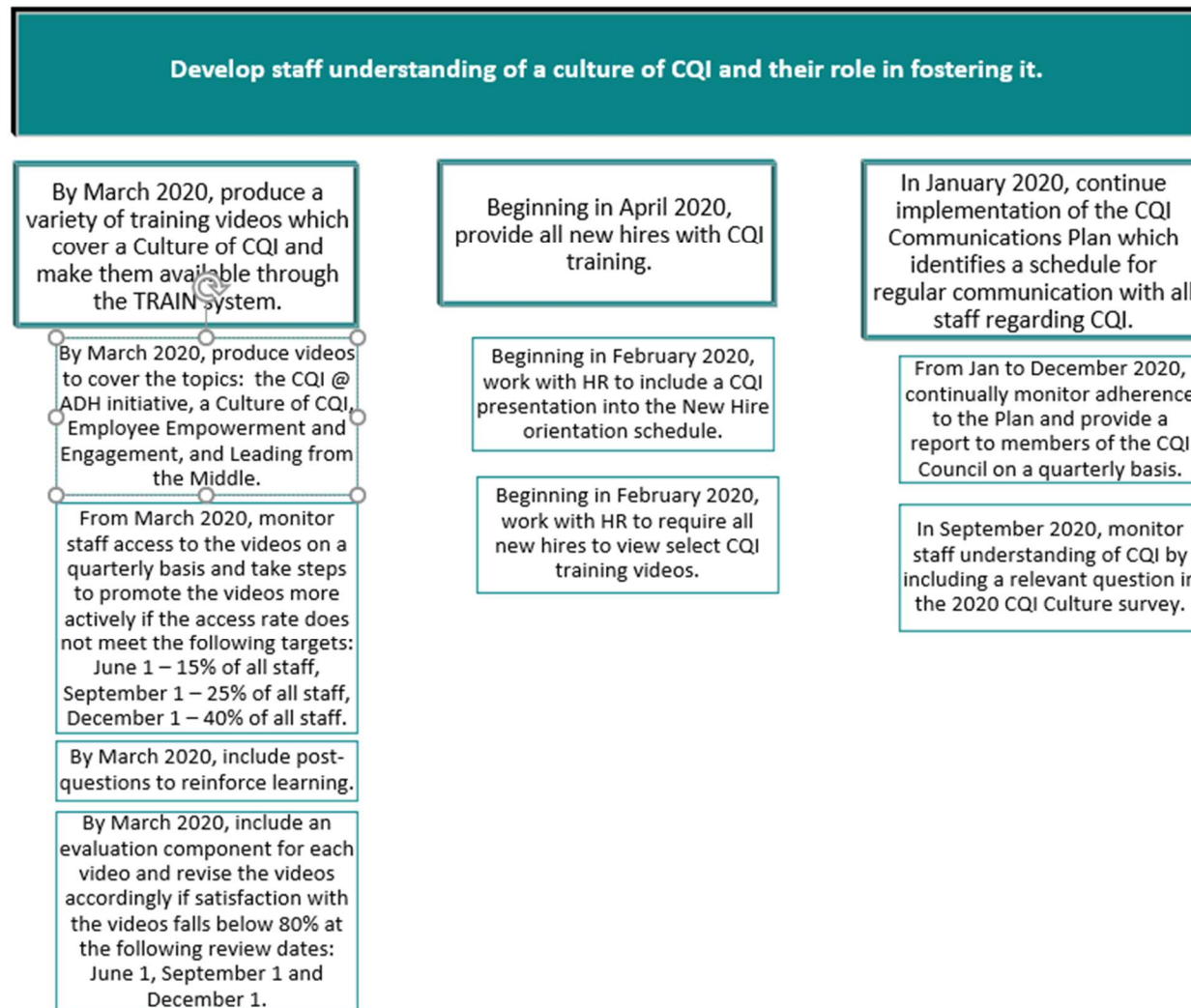
TRAINING PLAN (Stages 2 & 3)

To promote the development of an agency-wide culture of Continuous Quality Improvement by building the Knowledge, Skills and Abilities (KSAs) of all ADH staff and establishing an infrastructure to support CQI and QI efforts.

Develop staff understanding of a culture of CQI and their role in fostering it.	Develop the ability of staff to apply common QI project tools.	Establish a senior-level CQI Council and provide training to its members to enable them to facilitate the growth of a culture of CQI.	Establish and train a group of Center-based QI Champions to support QI projects.	Develop a system to recognize and reward staff for their successful completion of training activities.
By March 2020, produce a variety of training videos which cover a Culture of CQI and make them available through the TRAIN system.	By April 2020, produce training videos covering common QI project tools and make these available on the TRAIN network.	From May to December 2019, provide webinar and in-person training to CQI Council Members on fostering a culture of Continuous Quality Improvement	From May to December 2019, provide training to QI Champions that includes a culture of CQI, common QI project tools, and facilitation skills for QI project teams.	From April 2020, share information across the agency regarding staff completion of training activities.
Beginning in April 2020, provide all new hires with CQI training.	By March 2020, provide select staff with the opportunity to complete the IHI QI training.	From January 2020, continue to hold bi-monthly meetings of the CQI Council to identify training needs for creating an institutional culture of CQI.	From January to December 2020, provide QI Champions with a variety of electronic and printed resources to support their work with QI projects in their Centers.	From April 2020, implement a ‘certificate’ system to recognize staff completion of training programs.
In January 2020, continue implementation of the CQI Communications Plan which identifies a schedule for regular communication with all staff regarding CQI.	By February 2020, provide a list of resources and additional training opportunities for QI project team members on the ADH intranet.	From January 2020, facilitate collaboration between CQI Council members and QI Champions.	From January 2020, continue to hold monthly meetings of the QI Champions.	
	By January 2020, provide project team members with a QI Project Handbook which includes guidance on how to use common QI project tools.		From January to December 2020, provide ongoing training to QI Champions as needed.	
	Beginning in May 2020, provide quarterly QI training workshops to all staff.			

APPENDIX 6: “CQI @ ADH” Training Contd.

TRAINING PLAN to Develop a Culture of Continuous Quality Improvement at ADH



APPENDIX 6: “CQI @ ADH” Training Contd.

TRAINING PLAN to Develop a Culture of Continuous Quality Improvement at ADH

Develop the ability of staff to apply common QI project tools.

By April 2020, produce training videos which provide instruction on using common QI project tools and make these videos available on the TRAIN network.

Provide training videos covering the following topics: PDSA, Aim Statement, Brainstorming and Affinity Diagrams, Process Mapping, Cause & Effect, Pareto Chart, Run Chart, Sustaining, and Storyboards.

Include post-questions to reinforce learning.

Include an evaluation component for each video and revise the videos accordingly if satisfaction with the videos falls below 80% at the following review dates: June 1, September 1 and December 1.

Monitor staff access to the videos on a quarterly basis and take steps to promote the videos more actively if the rate for completion of at least two videos does not meet the following targets: June 1 – 3% of all staff, September 1 – 5% of all staff, December 1 – 7% of all staff.

By August 2021, include a question on ability to use QI tools, into the 2021 QI Survey.

By March 2020, provide select staff with the opportunity to complete the IHI QI training.

Establish a system for Centers, through their CQI team, to allow five staff members to have access to IHI training.

Monitor use and assessment performance on a regular basis and provide a report to CQI Council members on a quarterly basis.

Recognize course completion by posting information on the intranet webpage.

By February 2020, provide a list of resources and additional training opportunities for QI project team members on the ADH intranet.

Materials should include a comprehensive resource guide, links to online training opportunities and contact information for OPMQIE, the CQI Council, and QI Champions.

The intranet webpage should also include a mechanism for staff to request additional resources and these requests should be reviewed and accommodated if considered appropriate.

By January 2020, provide project team members with a QI Project Handbook which includes guidance on how to use common QI project tools.

From Jan to March 2020, provide a first draft to QI project team members and assess their satisfaction with the Handbook to direct revision for a second draft.

Require team members to review sections 1 – 3 prior to the first team meeting.

Ensure project team leaders instruct team members to review specific sections of the Handbook in preparation for subsequent meetings.

Beginning in May 2020, provide in-person QI training workshops on a quarterly basis to all staff.

Offer Centers, through their CQI team, the opportunity to nominate four staff members for each workshop.

Create a workshop agenda that includes a culture of CQI and common QI project tools.

APPENDIX 6: “CQI @ ADH” Training Contd.

TRAINING PLAN to Develop a Culture of Continuous Quality Improvement at ADH

Establish a senior-level CQI Council and provide training to its members to enable them to facilitate the growth of a culture of CQI.

Provide webinar and in-person training to CQI Council Members on fostering a culture of Continuous Quality Improvement

From May to December 2019, provide webinar and in-person training which offers foundational training on CQI.

From July to September 2020, provide additional training based on their experience in fostering the growth of a culture of CQI during the previous six months.

Hold bi-monthly meetings of the CQI Council to identify training needs for creating an institutional culture of CQI.

Facilitate collaboration between CQI Council members and QI Champions.

APPENDIX 6: “CQI @ ADH” Training Contd.

TRAINING PLAN to Develop a Culture of Continuous Quality Improvement at ADH

Establish and train a group of Center-based QI Champions to support QI projects.

From May to December 2019, provide training to QI Champions that includes a culture of CQI, common QI project tools, and facilitation skills for QI project teams.

Provide QI Champions access to recorded versions of training webinars.

From May to December 2019, provide QI Champions with webinars and in-person workshops which offers foundational training on QI, CQI and team facilitation.

From July to September 2020, provide QI Champions with additional training based on their experience in facilitating QI projects during the previous six months.

From Jan to December 2020, provide QI Champions with a variety of electronic and printed resources to support their work with QI projects in their Centers.

By December 2019, provide QI Champions with a QI Handbook.

By December 2019, establish a Shared Drive for QI Champions which provides links to a variety of resources.

From Jan to December 2020, provide ongoing training to QI Champions as needed.

Provide any additional training which QI Champions identify at monthly meetings.

From January 2020, continue to hold monthly meetings of the QI Champions.

Identify, and respond to any additional training for QI project teams.

APPENDIX 6: “CQI @ ADH” Training Contd.

TRAINING PLAN to Develop a Culture of Continuous Quality Improvement at ADH

Develop a system to recognize and reward staff for their successful completion of training activities.

From April 2020, share information across the agency regarding staff completion of training activities.

From April 2020, implement a ‘certificate’ system to recognize staff completion of training programs.

Post staff names and courses completed on the intranet webpage on a quarterly basis of staff who complete all the QI training modules.

Provide a certificate to staff who complete all the QI training modules.

Post names of staff who complete the CQI workshops on the intranet webpage on a quarterly basis.

Discuss other reward mechanisms with members of the CQI Council.

Provide names to Center directors of staff in their centers.

APPENDIX 6: “CQI @ ADH” Training Contd.

TRAINING PLAN to Develop a Culture of Continuous Quality Improvement at ADH

Training Plan Implementation I to QI

Content	Audience	Methods	Timeline
QI project tools	QI project team members; all staff	Handbook	January 2020 onwards
		Videos	April 2020 onwards
		ADH Workshops	Quarterly, beginning in May 2020
		Written materials on intranet	January 2020 onwards
		Links to additional on-line videos	April 2020 onwards
	QI Champions	Webinars	May – December 2019
		Workshop	May – December 2019
		In-house training	December 2019
		QI Champions’ Handbook	December 2019
		Written materials on QI Shared Drive	November 2019
Facilitating QI project teams	QI Champions	Webinars	May – December 2019
		Workshop	May – December 2019
		In-house training	December 2019
		QI Champions’ Handbook	December 2019
		Written materials on QI Shared Drive	October 2019 onwards

APPENDIX 6: “CQI @ ADH” Training Contd.

TRAINING PLAN to Develop a Culture of Continuous Quality Improvement at ADH

Training Plan Implementation QI to CQI

Content	Audience	Methods	Timeline
CQI @ ADH, A Culture of CQI	All staff	All HANDS	September 30, 2019
		Posters	November & December 2019
		Written materials on intranet	November 2019 onwards
	Supervisors in LPH	Presentation at LHU Administrators' Meeting	September 17, 2019
	Senior Management	Presentation at Senior Management Meeting	May 6, 2019
Staff Empowerment & Engagement	All Staff	Video	April 2020 onwards
Leading from the Middle	Supervisors and Managers	Video	April 2020 onwards

APPENDIX 7: “QI on the Fly” Training Video Script

1.	Welcome to this special video on Continuous Quality Improvement at the Arkansas Department of Health. I’ve titled it: QI on the FLY
2.	This video is designed to help you and your colleagues successfully utilize Quality Improvement – QI – methods and techniques under even the most demanding of circumstances. When time is critical, when the situation is continually changing, when resources – human and financial – are under constant stress, QI can bring enormous benefits to what you are doing and how you are doing it.
3.	When COVID-19 pandemic required me to do QI in a different way to what I had planned, I realized that following QI practices is particularly critical in times of emergencies when every step we take could have such a significant impact. And I realized that QI can be done quickly – it just requires an understanding of what to do and a commitment to do it.
4.	And, in fact, I think that QI practices are even more important to follow when you don’t have time because it is under those circumstances where efficiency and effectiveness are most crucial. And QI can help you achieve both. I hope you will see that the tools and techniques that will be reviewed in this video will be useful in many situations – not just public health emergencies.
5.	The learning objectives for this training are: <ul style="list-style-type: none"> ○ Steps for Quick QI ○ The importance of data ○ Symptoms vs. causes ○ QI Tools – Process Map and Fishbone Diagram ○ Repeat of Test
6.	The outline for this training is: <ul style="list-style-type: none"> ○ Steps for Quick QI <ul style="list-style-type: none"> ○ Step 1 <ul style="list-style-type: none"> ▪ Team ▪ Data ▪ Symptoms vs. causes ▪ QI Tools <ul style="list-style-type: none"> • Process Map • Fishbone Diagram (Cause and Effect) • Five Whys ○ Step 2 <ul style="list-style-type: none"> ▪ Solutions ▪ Prioritization Matrix ○ Step 3 <ul style="list-style-type: none"> ▪ Test, Study, Repeat ○ Step 4 <ul style="list-style-type: none"> ▪ Standardize
7.	QI is a PROCESS which uses evidence-based, best practice tools to measurably improve effectiveness and/or efficiency. It’s a process that helps you be more disciplined in how you approach solving a problem rather than operating on guesswork or hunches.
8.	Now I can anticipate your response – in some situations, like the pandemic, guesswork and hunches are all we have. We do not know what we are facing or how to deal with it most effectively. Using QI will help to ensure that you are making the most informed guesses that you can because you are basing them on careful analysis of all the data and information that are available to you.
9.	So how do you do QI on the FLY?
10.	(Steps to QI Graphic)

11.	This graphic identifies the steps to doing a QI project, using the Plan, Do, Study, Act model. We can modify these steps to focus just on the most essential elements, with the “On the Fly” revision looking like this.
12.	In step 1, the first task is to assemble the team.
13.	The first thing I would like to mention is that old expectations about how teams operated may not be feasible in some circumstances. Be flexible and creative at getting things done in whatever way actually works.
14.	Having said that, there are some people who should form the core of your team. 1) someone who knows what’s going on at the “front line”. You absolutely need someone who can inform the team about how the problem is being manifested and addressed daily particularly since this might be constantly changing. 2) With the continual need for data, you are certainly going to need the active involvement and commitment of a data person who can pull any numbers you need at pretty much any time you need it to address the problem. If getting this data in a timely manner is going to be difficult, then making improvement is going to be difficult as well.
15.	Finally, you will need the support of a senior-level sponsor. They do not need to participate in every meeting of the team, but they need to be kept informed so that, whenever you encounter an obstacle that inhibits your ability to address the problem, you have the support of someone who has the authority to deal with these problems. This is particularly important in an emergency when there are constant and competing demands for human and financial resources.
16.	The next task in Step 1 is to assess the problem; you can’t do that without data. Data is, without a doubt, the most critical component of QI. It is so important that we have come up with our own motto for data: Collect it – routinely, use it – continuously, Share it – widely.
17.	When you are doing all three components – collecting, using, and sharing - you can really make some impactful change. It doesn’t have to take long; it just requires the commitment to do it.
18.	We THINK we have a problem, and we THINK it’s significant, but we don’t really KNOW until we have real data. Data can illustrate so many different aspects of a problem as well as providing focus on the root causes and a direction to guide your work to address the problem.
19.	When it seems like problems are coming at you from all sides, data can illustrate where the problems really are and provide you with some guidance on what you should, and can, tackle first. But all data is not created equal. What I mean by that is you need to identify the goal for your data so that you are collecting and analyzing the “right” data - data that will tell you what you need to know to really understand the problem and to provide direction on how to fix it.
20.	I’ve heard it said that “Collecting data isn’t difficult. But collecting the right data is hard.” It doesn’t have to be. You just must think about what you need to know before you start gathering and analyzing your data. Consider some of the basic questions like who, what, when, where, why, and how to define your data goals.
21.	Let’s consider some examples of how data was used by the Case Investigation/Contact Tracing COVID-19 team.
22.	At the very beginning of the pandemic, as we worked on getting staff in place, we collected data on basic metrics such as how many people were testing positive, and the number of cases assigned versus unassigned to a case investigator. Almost immediately, we asked for data on how long it took for case investigation to begin, where the individual worked, who they had come into contact with, and so on. But very quickly, it became clear that we would need more detailed data if we were going to make the test, trace, isolate process as efficient and effective as possible. And in attempting to do that, it was also discovered that, in some cases, we weren’t collecting the data that we needed. The team continued to improve not only the analysis of data, but the collection of it as well. This is common to many QI projects so do not expect the data to be perfect at the beginning.
23.	The third task in Step 1 is to identify causes of the problem. But before we look at some of the QI tools that will help you do this; I want to talk about the difference between symptoms and causes.

24.	A simple example is that a symptom for many people who contracted the coronavirus was a cough. We could treat the cough and maybe it might be effective in making them more comfortable. But the cause is the virus and that is what we need to address if we are going to cure the patient.
25.	Let's consider this further by using a real example from our COVID work.
26.	The Department of Health has the responsibility to collect results of all incidences of infectious disease. Every COVID 19 test sample is either sent directly to our lab for analysis or sent to a partner lab which would analyze the sample and send the results to us. Results sent to us via electronic means can be dealt with most quickly – merged into our database and assigned to a case investigator.
27.	Results sent to us via paper means, by way of fax, cannot be dealt with as quickly because they require staff to manually enter the information into the database before the case can be assigned to an investigator. Paper-based results require additional resources in terms of staff and result in a delay in getting the case assigned. You can see the processing time difference in this chart.
28.	Our problem, then, is the delay in getting these cases assigned to an investigator and the human and financial resources required to process these results. The cause is that paper results require a manual rather than an automatic process. To really resolve this issue, we need to try to tackle this root cause, but of course we could not let paper-based results go un-processed while we work on addressing the cause.
29.	We tackled the symptom first by assigning as many staff as we could to doing the manual data entry. That is exactly what had to be done. With more people being added over time, coupled with refining the data entry process, you might expect the time difference to decrease. Because it does not address the cause, the problem will not go away so it is not an efficient or effective long-term response.
30.	If we want to resolve this problem, we need to address the cause, and that's exactly what ADH staff set out to do. They explored a variety of options to move to a more automated process, but there weren't very many that were do-able primarily because the problem came down to IT capacity within each medical provider –software as well as staff knowledge and skills – all of which vary widely from one provider to another.
31.	The solution – one that would address the cause as much as possible and one that we could do – was to provide other electronic mechanisms for the submission of test results. An online portal for this exact purpose was created through a collaborative effort of many different units at ADH and, while this was by no means an easy, a quick, or a smooth fix, - and perhaps real solutions rarely are – it had a significant impact on reducing the number of paper-based test results we received and thereby enabled more results to be processed more quickly.
32.	I hope this example helps to illustrate the difference between symptoms and causes and the need to address the latter. It should also demonstrate that while you may have to address the symptoms initially, but that only by working to address the cause will you resolve the problem in the long term.
33.	We have the right people on our team, we are armed with data, and we know we want to address the root cause rather than just the symptom. Now how do we go about identifying the cause? Two of the main tools to help us do this is a Process Map and a Fishbone Diagram.
34.	Let's first look at a Process Map. A Process Map is a graphical representation of every step in a process and is commonly referred to as a flowchart. It illustrates the way a process works and is one of the best tools to use to identify inefficiencies or problems with a process.
35.	Process problems are so common that it is easy to underestimate their impact not only in terms of wasted time, but also in terms of results. It really is important that we try to tackle these. Whether you are trying to modify an existing process that was used for something else, or you are creating an entirely new process in a hurry, you will get a much better result by doing a process map to help you examine every step to ensure the most efficient and effective process is in place.

36.	A Process Map is easy to create. In collaboration with people who are familiar with how the process is being carried out, document each step in the process as it is currently being undertaken, even if it's not how it should be done. Document each step with its own shape - ovals for starting and ending points, squares for a specific activity, and diamonds for decision points - and connect the shapes with arrows to demonstrate the sequence of steps.	
37.	Then discuss it in detail to identify bottlenecks, redundant steps, missing steps, and so forth. Here's a process map that was developed during our COVID work.	
38.	Another QI tool that is often used to determine the possible causes of a problem is the Fishbone Diagram. At any time, but even more so during an emergency when time is at a premium, it can be tempting for a project team to make assumptions about what the causes of a problem are and to just start working on them. But, as we have already noted, QI is about being more deliberate in how we address an issue so that we can get the right outcomes.	
39.	A Fishbone diagram – also referred to as a Cause & Effect diagram – is a very important way to help ensure that we identify the true root causes of a problem. To create a Fishbone diagram, start by putting the name of the quality problem (the effect) in a box at the far right, draw the spine, and then draw the fish bones which represent different categories of causes of the problem. Pick the categories and number of categories that are most appropriate for the issue being considered.	
40.	Continue to delve more deeply into causes by drawing branches off each fishbone line to explore a cause in more detail. Get data to look at the potential causes in more detail.	
41.	Let's look at the fishbone diagram created by the QI team that was working on revising the SAS process. In this case, they were looking specifically at the number of SAS forms that were returned by senior management for needed revisions.	
42.	Let's look at another example. This fishbone diagram was created at the beginning of the pandemic to help identify the causes for the number of positive COVID-19 cases that could not be linked to another case.	
43.	To get to the root causes you may need to delve more deeply into the general causes identified in the fishbone diagram. The Five Whys can be useful here. It is the repeated use of the question "WHY?" to reach the root cause.	
44.	Let's consider an example provided by the Quality Improvement Guide produced by Health Quality Ontario. A diagnostic lab was consistently running late, keeping patients waiting, and having to pay staff overtime. After creating a Fishbone Diagram, they discovered that the main cause of overall delay was the fact that about approximately 55% of patients were late for appointments. They then used the Five Whys to get to the root cause.	
45.	1. Why are patients always late? 2. Why can't they find parking? 3. Why don't they know about the parking near the lab? 4. Why don't we let them know?	1. They can't find parking. 2. They don't realize that parking is difficult in this area and many park far away because they don't know that there is a parking area behind the building next to the lab. 3. We don't mention it in our appointment letters or when we book appointments on the phone. 4. Maybe we should!
46.	With this information in hand, the lab revised its appointment letters and the booking clerk specifically discussed parking with all patients. As a result, 90% of patients were on time, they received services quickly and were more satisfied, and the lab operated more efficiently.	
47.	Having used the fishbone diagram, followed by the Five Whys, you have identified the causes, and you have most likely already identified potential solutions to address the problem. This is step 2. You may have more than one possible solution in which case you will have to select the one that you think will be the most effective. A prioritization matrix can help you with this. You can select whatever criteria you feel are most important to consider, but they will probably be something like impact versus cost, impact versus time, or impact versus difficulty.	

48.	You have identified the solution you want to implement, and you are ready to test it out which is step 3. The PDSA mode, upon which our Steps to QI is based, recommends testing the solution on a limited scale initially to give you an opportunity to analyze the results and to make any adjustments before you implement it on a full scale. That is what our team working on the electronic portal for test results did.
49.	They opened the portal initially to our own Local Health Units. They were able to make various improvements to the portal and the process for using it before they continued to make it available to other medical providers.
50.	When you have started to implement the test of your solution, make sure you keep reviewing the data to see what impact it is having. Is it having the desired effect? Don't jump to conclusions too soon, whether they are what you want or what you don't want. Keep monitoring the data. If you make some adjustments, watch to see the impact.
51.	If it's not working, then you may need to create a new Fishbone diagram to figure out what the problem is or a new Process map if you think the problem is a process-related one. Once you are satisfied with the results you are getting, expand your test accordingly. Continue to let the data guide you to the improvements that need to be made.
52.	That's it. A few short, easy but deliberate steps will help you use QI to address the problems you are facing. If you still think these steps will be time-consuming, consider how much time you will spend implementing supposed solutions that do not solve the problem, making it necessary for you to go back again and again until something works. Spend a little bit more time at the beginning will yield a better result.
53.	Let's review the Learning Objectives for this video.
54.	Steps for Quick QI – Following the PDSA model, a modified Steps to QI process can be used when action is needed quickly.
55.	The importance of data. Data is, without a doubt, the most critical component of QI. It is so important that we have come up with our own motto for data: Collect it – routinely, use it – continuously, Share it – widely.
56.	Symptoms vs. causes. The difference between symptom and cause is an important one and teams need to make sure they are addressing the root cause of a problem, not just a symptom of it. However, in some cases, such as in a public health emergency, it may be necessary to address symptoms until root causes can be identified and addressed.
57.	Three common QI tools are a Process Map, a Fishbone Diagram, and the Five Whys technique. A Process Map is a graphical representation of every step in a process, and it illustrates the way a process actually works.
58.	A Fishbone Diagram is used to identify causes of a problem. The Five Whys technique is often used in conjunction with a Fishbone Diagram to examine causes in more detail to get to the actual root cause.
59.	Testing an improvement idea on a limited, small-scale basis is an important part of the PDSA approach. Analyzing the results obtained from the tests, modifying them if necessary, and expanding them on a repeated basis, is the most effective way of developing an improvement solution that will address the problem over the long term.
60.	We hope that this video has demonstrated that QI can be used even under the most demanding circumstances. When time is critical, when the situation is continually changing, when resources – human and financial – are under constant stress, QI can bring enormous benefits to what you are doing and how you are doing it.
61.	Thank you.